No 25

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On Hepatitis.

by J. Atkinson of Va.
passed March 19th 1817.

Thomas P. Atkinson

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By the laws of the university of Pennsylvania, every candidate for the degree of Doctor of Medicine, is compelled to prepare a dissertation on some medical subject, to be submitted to the examination of the trustees and professors of that institution.

This circumstance alone induces me to write the following treatise on inflammation of the Liver, a disease, which from its frequency of occurrence in the Southern States, should particularly engage the attention of the physician who expects to settle in that part of our country, and who in all probability will have the lives of many who are afflicted with it intrusted to his care.

The ability with which this subject has so often been handled, by men of far greater talents and experience than myself, precludes the hope of my offering any thing original on it.

Hepatitis is placed by Dr. Cullen and other nosological writers, in the class Pyrexiæ, and order

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Phlegmasia; it is of two species, the acute and chronic. The first of these may be distinguished by an acute pain in the right hypochondrium, which is increased by pressure, and extends to the shoulder and clavicle of the affected side; breathing is performed with difficulty, the patient is frequently harassed by a distressing cough, and when lying on his left side, complains of a severe pain in the right. This is caused by the enlargement of the Liver, and a more than usual weight suspended by the ligaments which keep it in its natural position.

Adhesions are frequently formed between the convex surface of that viscus, and the parietes of the abdomen, these adhesions are torn when the body is turned on the left side, and thereby become an additional source of pain. The manner in which this takes place may be readily understood by a person acquainted with the anatomy of the parts, and with their relative situation in the abdominal cavity. Hickup and vomiting of bile, are frequent attendants, the skin is dry and hot, the tongue white or yellow ~~and~~

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and parched, the appetite is destroyed, the thirst is very much increased, the urine is of a deep yellow colour, the bowels are generally inactive, and the pulse is frequent, hard and strong. When the disease has continued several days, the skin and eyes sometimes become yellow as in Jaundice.

To the above symptoms is often superadded a painful affection of the muscles on the side of the neck; this I am told by one of the most respectable practitioners in the state of virginia, has very generally accompanied those cases which have fallen under his own immediate care. He has himself had several attacks of the disease, and he assures me that he invariably experienced, the disagreeable sensation of which I have spoken.

Utterly unable to account for the fact, I was at first disposed to consider it as accidental, depending probably on a Rheumatic state of the parts. but on reflection it may be as satisfactorily explained, as the pain in the shoulder which is laid down by all authors as a pathognomonic symptom of the disease, - Both are involved in obscurity and we can do no better, than to refer them to that law of the animal economy, termed Sympathy

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In the chronic species the symptoms are less violent, the liver is generally considerably enlarged, and can be felt projecting below the margin of the thorax. I have seen it more than once occupying the epigastric and nearly all of the left hypochondriac regions.

The pain is more of the obtuse kind, and the yellowness of the skin and eyes is to be met with oftener than in the acute. Sometimes there is an absence of all these symptoms, or they are so slight as to be unobserved, and the disease is not known to have existed untie death, when on dissection large abscesses have been found, the consequence as may be supposed of previous inflammation.

In several persons who have died of Hepatitis, of the chronic kind, the whole of the liver except the large bloodvessels, has been absorbed, without any symptom whereby the physician was led to suspect the presence of the disease.

Instances of this kind are by no means unfrequent.

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The late sir William Jones fell a victim to an insidious attack of chronic inflammation of this viscus. According to a request made by him a short time before he died, his body was opened, and to the astonishment of the spectators, his liver appeared in the condition which has been described.

The remote causes of Hepatitis are numerous and diversified; among them may be enumerated, Cold, injuries of the head, violent exercise, intense heat in summer, hence it occurs oftenest in warm countries, high seasoned food; but by far the most fruitful sources of the disease in the United States, are, the intemperate use of ardent spirits; and all those causes which tend to produce intermittent and remittent fevers.

In warm climates (says Dr. Thomas) the Liver is more apt to be affected by inflammation than any other part of the body, probably, from the increased secretion of Bile which takes place, when the blood is thrown on the internal parts by cold; or from the bile becoming acrid, and thereby exciting irritation in that organ.

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There is a distinction made between the symptoms, as they occur, when the disease occupies the different parts of the Liver. When it is seated in its substance, the pain is said to be of the obtuse and dull kind, and the weight in the right hypochondrium is more oppressive.

On the contrary, if there is an acute pain, resembling that of Pleurisy, with extreme difficulty of breathing, and cough or hickup, we may expect the convex surface to be affected. If the inflammation occupies that part of the inferior or concave surface which lies contiguous to the stomach, it very often extends itself to that viscus, and gives rise to excessive vomiting. In these instances the matter ~~thrown up~~ is often precisely similar to the black vomit which takes place in the yellow Fever.

Mr. Mathews in his valuable treatise on Hepatic diseases says "when the symptoms are severe, without any apparent enlargement on the right side of the abdomen, with little tension or hardness, yet on pressing the Liver, sickness, cough &c are brought on, it is a certain sign that the inflammation is situated about the region

of

Inflam perhaps more usually begins in some of the ducts to which the Liver is contiguous Hist. form. p. 248

Rarely occurred to him to confounded of Scirrhus &

Hydatids

of the gall=bladder, and that the bladder with the biliary ducts is principally affected.

Dr Heberden has given it as his opinion that the liver is never the original seat of the disease; but that inflam=mation commences in some of those parts with which it is in contact, (most commonly the stomach) and is com=municated to it by sympathy.

Here I must beg leave to differ from the very respectable authority which I have mentioned. That inflammation may be extended from the stomach to the liver, we will all admit: but that it very often has its origin in the liver I think we have abundant proofs.

Without adducing other arguments in support of our posi=tion, dissection affords us incontestable evidence of its truth. It is by examination after death that the true nature of disease is to be ascertained.

On dissection the liver has been found much enlarged, and inflamed, preternaturally hard, and instead of the dull brown colour as in healthy, of a variegated and purple hue, sometimes we have seen it affected with tumours, abscesses, worms scirrhosity or as I have before observed a considerable absorp

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=tion of its substance. All these appearances have been presented in different subjects, without any vestige of inflam=mation, or disease of any kind in the stomach or other visce=ra. These facts are sufficient to convince me, that the Liver may be, and often is the primary seat of inflammation.

Hepatitis may terminate in resolution, suppu=ration, scirrhous, and sometimes though very rarely in gan=grene. When it ends in resolution, it is often accomplished by spontaneous evacuations of different kinds; hemorrhage from the nose or hemorrhoidal vessels, or which is very frequently the case, a bilious diarrhoea, brings about the happy result; resolution is likewise sometimes occasi=oned by a profuse discharge of perspiration, the urine at the same time depositing a copious sediment.

The disease has been known to cease on the appear=ance of external erysipelatous inflammation.

Should resolution not take place, and the pain together with the febrile symptoms is increased, it turns on to suppuration; if the abscess is seated on the convex surface of the Liver, and adhesions have formed between it, and the peritoneum lining the abdomen,

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we may readily discover a tumour and fluctuation by the touch. a severe pain, increase of heat and thirst, a dry skin, and frequent shivering fits accompany the formation of pus; when suppuration has taken place, there is a diminution of pain, a flushing of the face, an increase of the evening paroxysm of fever, night sweats and other hectic symptoms.

The discharge of the contents of the abscess varies according to the seat of the disease. The matter sometimes bursts through the diaphragm and is emptied into the Thorax; if adhesion has formed between the abscess and Lungs, it is in some few instances discharged by coughing, but in a great majority of cases the unhappy victim is suffocated. It occasionally passes into the stomach or intestines, and is vomited up or voided by stool. If the abscess breaks and no adhesion has taken place with the surrounding parts, the pus is thrown directly into the cavity of the abdomen, and peritoneal inflammation is excited which puts a speedy termination to the existence of the patient.

The diseases for which Hepatitis is most likely to

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be mistaken, are, Pneumonia, gastritis, and spasm of the gall
= ducts. It may be distinguished from the first of these by
the pain extending to the shoulder and neck, by an absence
of expectoration, and by the breathing being performed with
less difficulty. In gastritis there is an excessive burning
pain, in the region of the stomach, which is conside
= rably increased when any thing is swallowed; there is
too, a greater and more sudden depression of strength
in this, than in any other disease, all these symptoms are
absent in Hepatitis.

A late writer tells us that inflamma
= tion of the liver, may be known from spasm of the gall ducts
by there being no nausea, by the pain being perma
= nent, by the pulse being more frequent, and by the pa
= tient always preferring to keep the body in a straight qui
= escent posture, whereas the greatest ease when there
is spasm of the ducts, is obtained by bending the body forward
on the knees.

It remains for me now to speak of
the treatment of the disease, and in doing this, I can only
mention those remedies which I have from the experi

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=ence and observation of others, have proved most success
=ful in their hands.

In acute Hepatitis, we should strenuously endeavour to effect a resolution; the rapidity with which in=flammation progresses in the liver, and its great tendency to suppuration, are circumstances which should ever be recollected, and demand that the most active depleting remedies should be early and copious=ly employed. Among these, venesection is by far the most efficacious, indeed the lancet is the anchor of hope, and ought never to be laid aside untie the inflammation is subdued. Besides directly lessening the force of the circulation, it prepares the system for the administration of those medi=cines which are to succeed it, for it sometimes happens that the most drastic purgatives cannot be made to produce an evacuation untie bloodletting is employed to remove the ~~[illegible]~~ spasm of the bowels.

Some writers on this subject, have told us never to bleed after the expiration of the fourth day of the disease; this I think is an unnecessary and improper direction, and one, which if attended to

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might be productive of a vast deal of error and mischief in practice. In the treatment of this, as indeed of every other disease, we are carefully to adapt our remedies to the circumstances of each particular case, and as long as those symptoms are present which indicate the necessity of venesection, we are fearlessly and boldly to employ it, without regard to the number of days or weeks which the disease has continued. We are therefore never to confine ourselves to any single direction as to the quantity of Blood to be drawn; this should only be regulated by the degree of inflammation and the strength of the patient. The discretion of the practitioner is to determine to what extent it is required.

Venesection is to be succeeded by the liberal use of purgative medicines: of these I should give the decided preference to large doses of Calomel, often repeated, and alternated with preparations of the neutral Salts. The common dose in which calomel is administered, is in my opinion, entirely too small to produce that permanent impression on

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system which it is our object to effect.

To obtain a complete evacuation of the alimentary canal, I would give 20 or 30 grs; after which a solution of the Sulph: Soda or Magnesia might with great propriety be directed. These should be repeated at such intervals as to excite an artificial diarrhoea, which may be continued as long as the urgency of the case may demand.

Topical bleeding, by the application of Cupping glasses or Leeches over the affected part, will also prove highly beneficial; indeed some practitioners have been so much prepossess'd in favour of this mode of depletion as to employ it to the entire exclusion of venesection. This practice may be correct in cases where the pain and fever are moderate, or which succeed long continued intermittent or remittent fevers; but when the inflammation of the liver is the primary disease and the patient is not in a very debilitated state, we should not hesitate to use the lancet freely.

Many physicians of the highest standing, have

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commended in strong terms, the practice of taking blood from a large orifice in inflammatory diseases. It is true (they say) that from a small orifice an equal quantity may be drawn as from a large one; but the time of its flowing is so long, that the topical affection (which demands for its relief a sudden impression on the system) is not much influenced by it, though the general strength is greatly reduced, which is an occurrence to be avoided as much as possible, in a disease that requires repeated evacuations.

By some, the digitalis purpurea has been extolled as a valuable medicine in Hepatitis. I confess myself no great advocate for its use, but am rather inclined to attribute the good effects which have been supposed to be derived from it entirely to the other means which were employed at the same time.

When the inflammatory symptoms have been somewhat reduced by the active administration of the more depleting remedies, we should apply a large Blister over the Liver, the discharge from which is to be continued for some conside

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rable time. If it is disposed to heal too soon it has been recommended to keep it open by the application of a succession of Blisters, rather than of any stimulating ointment. With a view to excite a gentle diaphoresis we administer the antimonial powders, taking care to give them in such doses, and at such intervals, as to produce nausea only.

As long as there is a possibility of effecting a resolution, we should persevere in the anti phlogistic regimen; and, as a very important part of this plan of treatment, strict attention is to be paid to the patients diet: he should be nourished during the inflammatory stage of the disease by barley or rice water, toast and water or something of that kind. Animal food and spirits of every sort should be most positively prohibited. It is sometimes necessary in the acute inflammation of the liver to excite ptyalism; this may be done by the internal use of small quantities of calomel, and by means of Mercurial frictions. In some cases the disease readily submits to a short salivation, but generally it is necessary to continue it for several weeks.

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When, (as is sometimes the case) all our efforts to obtain a resolution prove abortive, and we perceive that the disease will inevitably terminate in suppuration, we are to encourage the formation of healthy pus by the application of warm fomentations to the affected part; and during the suppurative process the patient's strength is to be supported by a more generous diet, than had previously been allowed him, with the addition, if necessary of madeira wine. At this stage of the disease, it has been recommended to employ the Peruvian Bark in the quantity of ℥ss or ℥j in the course of the day.

Our chief object now, is to effect a discharge of the contents of the abscess by an external opening, and as soon as it is formed we should without delay make an incision into it.

In Chronic Hepatitis the practice is a little different from that which is demanded in the acute. Copious venesection is not so clearly indicated, but here too, the quantity of blood drawn should be proportioned to the violence of the inflammatory action, and to the strength of the patient.

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In this form of the disease Mercury is undoubtedly the most effectual remedy with which we are at present acquainted; and is to be administered so as to induce an early ptyalism. My confidence in the powers of this medicine in the treatment of chronic inflammation of the liver is such, that I never would discharge a patient as radically cured of the disease until his salivary glands became affected.

As an auxiliary to Mercury, and to support the system under its operation ~~the~~ as Nitric Acid has been given with evident benefit: it is used by the East-India practitioners in all chronic affections of the liver, and is highly spoken of, by them. The quantity in which they generally give it, is ʒij or ʒiij in 24 hours, in doses of 15 or 20 drops, plentifully diluted with water, mucilage or syrup.

Much is to be expected from the use of blisters in every form of the disease, but of all the remedies adapted to protracted cases, next to Mercury, the preference is decidedly due to Issues. To obtain their full effect, they should be kept open for a long time.

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I have now finished my observations on inflammation of the liver, but I should do great injustice to my own feelings, as well as to the merits of the different professors of the institution which I am about to leave, were I to close this dissertation, without returning them my most sincere thanks, for the cheerfulness with which, (as public teachers and as friends) they have at all times communicated their useful information.

I shall only add my sincere desire that the university of Pennsylvania may long hold that preeminence over the similar institutions of our country to which the superior qualifications of its professors now so justly entitle it.